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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,839	11/16/2001	Yukio Nakano	500.40877X00	7590

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EXAMINER
THAI, HANH B

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *11-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.   Applicant's election without traverse of claims 1-10 and 24 in the reply filed on

December 1, 2004 is acknowledged. Claims 11-23 are withdrawn from consideration.

DETAILED ACTION

2.   The information disclosure statement filed November 16, 2001 fails to comply with the

provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it is submitted in improper format. It

has been placed in the application file, but the information referred to therein has not been

considered as to the merits. Applicant is advised that the date of any re-submission of any item

of information contained in this information disclosure statement or the submission of any

missing element(s) will be the date of submission for purposes of determining compliance with

the requirements based on the time of filing the statement, including all certification

requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-3, 6-8 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by

Bridge (US 6,405,284 B1).

Regarding claim 1, Bridge discloses a database management system connected to a

plurality of storages for storing a plurality of data items, comprising:

- a storage having a first storage area ("104", Fig.1) corresponding to a plurality of storages for storing a plurality of data items and having a second storage area ("114", Fig.1) corresponding to a storage to be added to or disconnected from said plurality of storages (col. 3, lines 10-22 and col.4, line 64-col.5, line 14);

- an acceptance section connected to the storage for accepting a data processing request (col.2, lines 10-13), said data processing request including data processing in said plurality of storages and data rebalance between said plurality of storages (col.23, lines 49-55); and

- a plurality of executors connected to said acceptance section for sequentially executing at least any of the data processing in the plurality of storages and the data rebalance (col.21, lines 20-61. I/O operations corresponding to executors).

Regarding claim 2, Bridge discloses a database management system as set forth in claim 1, wherein said storage has a storage area correspondence table (col.14, lines 28-29) showing combinations of predetermined data items to be sharedly shared by said plurality of storages according to said request of addition or disconnection to cause the data rebalance between the storages (col.23, lines 26-45; Fig.7 and corresponding text).

Regarding claim 3, Bridge discloses a database management system as set forth in claim 1, wherein said acceptance section has a rebalance flag indicating that said plurality of storages are being rebalanced due to addition or disconnection to said plurality of storages, and said acceptance section, in response to a data processing request to said data items stored in said plurality of storages, refers to said rebalance flag and reflects data update even on the storages subjected to the data rebalance (col.22, lines 44-50).

Regarding claim 6, Bridge discloses a database management program installed in a

database management system connected a plurality of storages for storing a plurality of data

items via an interface, said program being capable of being read by a computer, said program

comprising the steps of: setting first information indicative of a plurality of storages for storing

the plurality of data items in a first storage area; setting second information indicative of a

storage to be subjected to a request of add or disconnect to said plurality of storages in a second

storage area; accepting a database processing request at an acceptance section connected to said

storages, sad database processing request including processing of data in the plurality of storages

and data rebalance between said plurality of storages; and sequentially executing at least any of

the data processing in the plurality of storages and the data rebalance in a plurality of executors

(col. 3, lines 10-22; col.4, line 64-col.5, line 14 and col.22, lines 44-50).

Regarding claim 7, Bridge discloses a database management program as set forth in claim

6, further comprising a step of storing in said storages a storage area correspondence table

(Fig.7) showing combinations of predetermined data items to be sharedly stored by said plurality

of storages in response to said request of addition or disconnection to cause data rebalance

between the storages.

Regarding claim 8, Bridge discloses a database management program as set forth in claim

6, further comprising a step of setting rebalance information indicating that said plurality of

storages being rebalanced due to addition or disconnection to the plurality of storages in a

rebalance flag, and a step of, in response to a data processing request to said data items stored in

said plurality of storages, referring to said rebalance flag and reflecting data update even on the

storages subjected to the data rebalance (col. 3, lines 10-22; col.4, line 64-col.5, line 14 and

col.22, lines 44-50).

Regarding claim 24, Bridge discloses a program read into a computer and run over a

database under control of a computer to execute steps for database management, comprising the

steps of: at the time of starting the program, confirming presence or absence of an area for

storing information for identification of an additional storage for storing table data and

information indicative of 'in rebalance operation' during which data is moved to said additional

storage, and, in the absence of the area, securing said area (col.4, line 64-col.5, line 14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 4-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bridge (US 6,405,284 B1) in view of Arai et al. (US 5,564,116) provided by applicant.

Regarding claims 4 and 9, Bridge all of the claimed limitations as discussed above,

except adding data position information to data before subjected to the rebalance execution by

said data rebalance request in said plurality of storages. Arai discloses a storage unit for storing a

write position on the way of the rearrangement of data including additional added storage

("1025", Fig.1 and abstract of Arai). It would have been obvious to one of ordinary skill in the

art at the time of the invention to modify Bridge to include the claimed feature as taught by Arai.

The motivation of doing so would have been to increase the redundancy of the storages (col.2, lines 1-5, Arai).

Regarding claims 5 and 10, Bridge/Arai combination discloses a database management system as set forth in claim 1, further comprising means, in response to a rebalance request of data to be rebalanced in a storage added according to said addition request, for adding data position information to data (abstract, col.5, line 63-col.6, line6 and col.8, lines 61-65, Arai).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Muray et al. (US 6,330,653 B1) disclose manipulation of virtual and live computer storage device partitions.

2. Wolff (US 6,067,545) discloses resource rebalancing in networked computer systems.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B Thai whose telephone number is 571-272-4029. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh B Thai
Examiner
Art Unit 2161

March 2, 2005

UYEN LE
PRIMARY EXAMINER